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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,533	10/17/2000	Jorg Kopp	P00.1726	7546

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BOSTON, MA 02110

EXAMINER

NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,533

Applicant(s)

KOPP ET AL.

Examiner

Christine Ng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The paragraph on Page 5, lines 18-21 of the pre-amendment of October 17, 2000 has not been added into the specifications because it was not specified where in the specifications it should be added.

Drawings

2. The drawings were received on October 17, 2000. These drawings are acceptable.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 3, it is unclear what a peripheral line assembly is.

In claim 1 lines 6-7, it is unclear how the peripheral line assemblies mutually monitor each other via connections. It is also unclear what types of connections are used.

In claim 1 lines 11-12, it is unclear what the internal and external interfaces refer to and what type of interactive connection they have to the peripheral line assemblies. It is unclear how the internal interfaces "serve as interfaces to the assemblies AMX of the ATM switching network" (Page 2, lines 5-6) and how the external interfaces

"represent interfaces to the connected trunks for the other switching network devices"
(Page 2, lines 6-7). The internal and external interfaces are not shown in the drawings.

In claim 1 lines 13-15, it is unclear what a higher-ranking mechanism is and how it monitors and controls all devices.

In claim 3 lines 4-5, it is unclear what is meant by "an interface belonging to said switching network".

Claim 3 recites the limitation "said switching network" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,021,111 to Soga in view of U.S. Patent No. 5,014,261 to Shinbashi et al.

Referring to claim 1, Soga discloses in Figures 1 and 2 a method for standby circuiting of assemblies in 1:N redundancy. The method comprises the steps of providing peripheral line assemblies (Elements 12 and 13) and providing a standby circuit assembly (Element 14) that takes the place of a down peripheral line assembly in case of a failure of the peripheral line assembly. Figure 3 shows an example of when a failure has occurred in one of the units (Element 12) and spare unit (Element 14) must replace it. Refer to Column 4, lines 11-22 and Column 5, lines 26-36. The method also

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comprises providing internal (communication circuit, Element 21) and external (failure detection circuit, Element 23) interfaces that have an interactive connection to the peripheral line assemblies (Elements 12-14). The communication circuit (Element 21) performs a "communication operation" and the failure detection circuit (Element 23) detects the occurrence of a failure in the communication circuit 21 and "outputs an alarm signal 22" (Column 4, lines 27-31). The method also comprises monitoring and controlling all devices with a higher-ranking mechanism (switching control unit, Element 24). The switching control unit (Element 24) monitors all units (Elements 12-14) to control the switchover from a faulty unit (Element 12) to a spare unit (Element 14). Refer to Column 5, lines 26-56.

After determining the outage of a unit (Element 12), the method comprises sending a message (Element 25) from the switching control unit (Element 24) to the standby circuit assembly (Element 14). "Upon reception of the alarm signal 22, the switching control unit 24 discriminates the faulty current unit, and sends the faulty unit notification signal 25 indicating the occurrence of the failure and the faulty unit to the spare unit 14" (Column 5, lines 32-36). The switching, by the standby circuit assembly (Element 14) is then performed by the internal (communication circuit, Element 31) and external interfaces (CPU, Element 33) by driving switches (switching unit, Element 16). The CPU (Element 33) sets data corresponding to the faulty unit (Element 12) into the communication circuit (Element 31) and then sends a switching permission signal (Element 26) to the switching control unit (Element 24). The switching control unit (Element 24) then sends a signal (Element 27) to switching unit (Element 16) to indicate

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that switching from the faulty first unit (Element 12) to the spare unit (Element 14) is done. Refer to Column 5, lines 37-56. Finally, the standby circuit assembly (Element 14) activates itself. "In accordance with the instruction from the with control signal 27, the switching unit 16 performs switching from the faulty first current unit 12 to the spare unit 14" (Column 5, lines 49-52).

Soga does not disclose that the method comprises: peripheral line assemblies that are respectively allocated to one another in pairs and comprise connections to one another; mutually monitoring each of the peripheral line assemblies within each pair via the connections; and determining the outage of one of the peripheral line assemblies is determined by a remaining peripheral line assemblies that had been paired with the out peripheral line assembly.

Shinbashi et al discloses in Figure 4C peripheral line devices (Elements 1-1 to 1-n and 5) that are respectively allocated to one another in pairs and comprise connections to one another. The "corresponding switching units 5 are provided in the accommodation region of the stand-by units responsive to the working units 1-1 to 1-n" (Column 4, lines 57-60). When a fault occurs in any of the working units (Elements 1-1 to 1-n), "connection of an input line and a multiplex line of the working unit in which a fault has occurred are switched to the common stand-by unit 3A by the switching unit 5" (Column 4, lines 22-26). Furthermore, a control unit (Element 6) "receives fault detection data from the working units 1-1 to 1-n, and outputs switching signals for controlling the switching portion of the switching units 5" (Column 4, lines 7-11) to move control to the common stand-by unit (Element 3A).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the method comprises: peripheral line assemblies that are respectively allocated to one another in pairs and comprise connections to one another; mutually monitoring each of the peripheral line assemblies with each pair via the connections; and determining the outage of one of the peripheral line assemblies is determined by a remaining peripheral line assemblies that had been paired with the out peripheral line assembly. One would have been motivated to do so in order to provide each working unit with a switching device that will determine when the working unit is out and perform the switching to the common stand-by unit. This is used for situations with the working units do not have a high degree of importance and do not each need a separate stand-by unit, as in 1:1 redundancy. Refer to Column 3, lines 53-62. The switching device can also be readily replace with a stand-by unit in case the degree of importance of the working unit increases and it needs its own separate stand-by unit, rather than utilizing a common stand-by unit. Refer to Column 1, lines 10-18 and Column 2, lines 40-45.

Allowable Subject Matter


9. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (703) 305-8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng 
March 2, 2004


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